

Remarks

The Office Action mailed October 4, 2005, has been carefully reviewed and the following remarks have been made in consequence thereof.

Claims 8-12 are pending in this application. Claims 8-12 stand rejected. Claims 1-7 and 13-19 have been canceled.

The rejection of Claims 8-12 under 35 U.S.C. § 112, second paragraph is respectfully traversed. Specifically, Claim 8 has been amended to recite “said combustor comprising a spectacle plate, and a plurality of swirlers attached to said spectacle plate, wherein to assemble said combustor an assembly fixture is coupled to at least one of said swirlers” For at least the reasons set forth above, Applicants respectfully request that the Section 112 rejection of Claims 8-12 be withdrawn.

The rejection of Claims 8-12 under 35 U.S.C. § 102(e) as being anticipated over Freidauer et al. (“Freidauer”) (U.S. Patent No. 6,502,400) and under 35 U.S.C. § 102(b) as being anticipated by its WO equivalent (WO 200190652) is respectfully traversed.

Freidauer describes a combustor 10 for a gas turbine engine. The combustor includes a hollow body 12 including an outer liner 16 and an inner liner 18. A dome assembly 27 is positioned between and interconnects the outer and inner liners. The dome assembly includes an annular spectacle plate 28 and a plurality of circumferentially spaced swirler assemblies 30. The swirler assembly includes a primary swirler 32 and a secondary swirler 40 downstream of the primary swirler. Each swirler assembly has a deflector 46 extending downstream. Although the use of a fixture is described in the background of the invention portion of Freidauer, the invention taught in Freidauer teaches **not** to use a fixture. Specifically, “the swirler assemblies 30 and the deflector 46 are **joined together in a single**

operation without the need for fixturing.” (Col. 5, lines 14-16) Moreover, Freidauer does not describe a fixture including a plurality of arms sized to receive each respective swirler and an attachment portion configured to couple to a spectacle plate.

Claim 8 recites “a combustor for a gas turbine engine, said combustor comprising a spectacle plate, and a plurality of swirlers attached to said spectacle plate, wherein to assemble said combustor an assembly fixture is coupled to at least one of said swirlers, wherein each respective assembly fixture includes a plurality of arms that are sized to receive each said respective swirler and an attachment portion that is configured to couple to said spectacle plate . . . each respective assembly fixture is removably coupled to said spectacle plate to facilitate maintaining an alignment of each said respective swirler with respect to said spectacle plate . . . and each respective assembly fixture is then uncoupled from each said spectacle plate after each said swirler is attached to each said spectacle plate.”

Freidauer does not describe nor suggest a combustor as is recited in Claim 8. Specifically, Freidauer does not describe nor suggest assembling the combustor using an assembly fixture that includes a plurality of arms that are sized to receive each respective swirler and an attachment portion that is configured to couple to a spectacle plate. Accordingly, Claim 8 is submitted to be patentable over Freidauer.

Claims 9-12 depend, directly or indirectly, from independent Claim 8. When the recitations of Claims 9-12 are considered in combination with the recitations of Claim 8, Applicants submit that dependent Claims 9-12 likewise are patentable over Freidauer.

For at least the reasons set forth above, Applicants respectfully request that the Section 102 rejection of Claims 8-12 be withdrawn.

The rejection of Claims 8-12 under 35 U.S.C. § 103(a) as being unpatentable over any of Halila (U.S. Patent No. 5,353,587), Koshoffer (U.S. Patent No. 5,239,832), and Thompson (U.S. Patent No. 6,212,870) in view of Freidauer or its WO equivalent is respectfully traversed.

Freidauer is described above. Halila describes a dual annular combustor 34 for a gas turbine engine. The combustor includes a double row of swirlers 26 mounted in respective outer and inner domes 16 and 18. A deflector is mounted between each swirler and each dome. The outer dome includes an annular support 46 and the inner dome includes an annular support 48. Notably, Halila does not describe the use of a fixture assembly.

Koshoffer describes a combustor 10 for a gas turbine engine. The combustor includes an annular combustion chamber defined by an outer liner 16, an inner liner 18, a dome 28, an outer cowl 34, and an inner cowl 36. The combustor also includes a fuel cup assembly 26 that includes a sleeve 42, a splash plate 44, a primary swirler 46, and a secondary swirler 48. The fuel cap assembly is brazed to the dome downstream of the secondary swirler 48. Notably, Koshoffer does not describe the use of a fixture assembly.

Thompson describes a combustor 10 for a gas turbine engine. The combustor includes a hollow body 12 including an outer liner 16 and an inner liner 18. A dome plate 36 is positioned between and interconnects the outer and inner liners and defines an outer dome 38 and an inner dome 40. A plurality of circumferentially spaced swirler assemblies 42 are positioned in outer dome 38 and a plurality of circumferentially spaced swirler assemblies 48 are positioned in inner dome 40. The dome plate together with swirler assemblies 42 and 48 make up a combustor dome assembly. Notably, Thompson does not describe the use of a fixture assembly.

Applicants respectfully submit that the Section 103 rejection of the presently pending claims is not a proper rejection. As is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. None of either Halila, Koshoffer, Thompson, and Freidauer, considered alone or in combination, describe or suggest the claimed combination. Furthermore, in contrast to the assertion within the Office Action, Applicants respectfully submit that it would not be obvious to one skilled in the art to combine Halila, Koshoffer, and Thompson with Freidauer, because there is no motivation to combine the references suggested in the art. Additionally, the Examiner has not pointed to any prior art that teaches or suggests to combine the disclosures, other than Applicants' own teaching. Rather, only the conclusory statement that "it would have been obvious to one skilled in the art to employ a fixture to perform the coupling and assembly of the combustor/swirler arrangement as the conventional practice in the art" suggests combining the disclosures.

As the Federal Circuit has recognized, obviousness is not established merely by combining references having different individual elements of pending claims. Ex parte Levengood, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). MPEP 2143.01. Rather, there must be some suggestion, outside of Applicants' disclosure, in the prior art to combine such references, and a reasonable expectation of success must be both found in the prior art, and not based on Applicants' disclosure. In re Vaeck, 20 U.S.P.Q.2d 1436 (Fed. Cir. 1991). In the present case, neither a suggestion or motivation to combine the prior art disclosures, nor any reasonable expectation of success has been shown.

Furthermore, it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the cited art so that the claimed invention is

rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. The present Section 103 rejection is based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Since there is no teaching nor suggestion in the cited art for the combination, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicants request that the Section 103 rejection be withdrawn.

Further, and to the extent understood, none of Halila, Koshoffer, Thompson, and Freidauer, considered alone or in combination, describe or suggest the claimed combination, and as such, the presently pending claims are patentably distinguishable from the cited combination. Specifically, Claim 8 recites “a combustor for a gas turbine engine, said combustor comprising a spectacle plate, and a plurality of swirlers attached to said spectacle plate, wherein to assemble said combustor an assembly fixture is coupled to at least one of said swirlers, wherein each respective assembly fixture includes a plurality of arms that are sized to receive each said respective swirler and an attachment portion that is configured to couple to said spectacle plate . . . each respective assembly fixture is removably coupled to said spectacle plate to facilitate maintaining an alignment of each said respective swirler with respect to said spectacle plate . . . and each respective assembly fixture is then uncoupled from each said spectacle plate after each said swirler is attached to each said spectacle plate.”

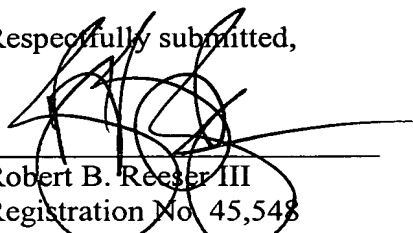
No combination of Halila, Koshoffer, Thompson, and Freidauer describes or suggests a combustor as is recited in Claim 8. Specifically, no combination of Halila, Koshoffer, Thompson, and Freidauer describes or suggests assembling the combustor using an assembly fixture that includes a plurality of arms that are sized to receive each respective swirler and an attachment portion that is configured to couple to a spectacle plate. Accordingly, for at least the reasons set forth above, Claim 8 is submitted to be patentable over Halila, Koshoffer, and Thompson in view of Freidauer.

Claims 9-12 depend from independent Claim 8. When the recitations of Claims 9-12 are considered in combination with the recitations of Claim 8, Applicants submit that Claims 9-12 likewise are patentable over Halila, Koshoffer, and Thompson in view of Freidauer.

For at least the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 8-12 be withdrawn.

In view of the foregoing remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully submitted,



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